

ABSTRACT OF DISCLOSURE

The present invention provides a high quality thin film comparable to a bulk single crystal and provides a semiconductor device with superior characteristics. A channel layer 11, for example, is formed of a semiconductor such as zinc oxide ZnO or the like. A source 12, a drain 13, a gate 14 and a gate insulating layer 15 are formed on the channel layer 11 to form an FET. For a substrate 16, a proper material is selected depending on a thin film material of the channel layer 11 in consideration of compatibility of both lattice constants. For example, if ZnO is used for the semiconductor of the channel layer as a base material, ScAlMgO_4 or the like can be used for the substrate 16.

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